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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/560,269	04/26/2000	Barry M. Nolte	777.344US1	2518

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EXAMINER

GROSS, KENNETH A

ART UNIT	PAPER NUMBER
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2122

17

DATE MAILED: 06/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/560,269

Applicant(s)

NOLTE, BARRY M.

Examiner

Kenneth A Gross

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 April 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-51 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-51 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

1. This action is in response to the Amendment filed April 6th, 2004.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-3, 10-12, 16-18, 25-27, 31-33, 40-42, and 46-51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Angel et al. (U.S. Patent Number 6,314,558) in view of Bittner et al. (U.S. Patent Number 6,397,380).

In regard to Claims 1-3, 10-12, 16-18, 25-27, 31-33, and 40-42, for specific rejections of these Claims, see the office action mailed on January 26th, 2004.

In regard to Claim 46, Angel teaches that the determining and inserting steps occur at the byte code level, which is not compiled, and hence the inserting and determining is not performed during compilation (Column 3, lines 15-25).

In regard to Claims 47-51, these Claims contain limitations that have already been addressed in the rejection of Claim 46, and are rejected for the same reasons as Claim 46.

4. Claims 4, 6, 19, 21, 34, and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Angel et al. (U.S. Patent Number 6,314,558) in view of Bittner et al. (U.S. Patent Number 6,397,380) and further in view of Grossman et al. (U.S. Patent Number 6,332,213).

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In regard to Claims 4, 6, 19, 21, 34, and 36, for specific rejections of these Claims, see the office action mailed on January 26th, 2004.

5. Claims 8, 23, and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Angel (U.S. Patent Number 6,314,558) in view of Bittner et al. (U.S. Patent Number 6,397,380) and further in view of Yellin (U.S. Patent Number 5,761,513).

In regard to Claims 8, 23, and 38, for specific rejections of these Claims, see the office action mailed on January 26th, 2004.

6. Claims 5, 7, 20, 22, 35, and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Angel et al. (U.S. Patent Number 6,314,558) in view of Bittner et al. (U.S. Patent Number 6,397,380) and further in view of Grossman et al. (U.S. Patent Number 6,332,213), Whygodny (U.S. Patent Number 6,282,701), Miller (U.S. Patent Number 6,438,512) and O'Donnell (U.S. Patent Number 6,374,369).

In regard to Claims 5, 7, 20, 22, 35, and 37, for specific rejections of these Claims, see the office action mailed on January 26th, 2004.

7. Claims 9, 24, and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Angel (U.S. Patent Number 6,314,558) in view of Bittner et al. (U.S. Patent Number 6,397,380) and further in view of Yellin (U.S. Patent Number 5,761,513), Whygodny (U.S. Patent Number 6,282,701), Miller (U.S. Patent Number 6,438,512) and O'Donnell (U.S. Patent Number 6,374,369).

In regard to Claims 9, 24, and 39, for specific rejections of these Claims, see the office action mailed on January 26th, 2004.

Response to Arguments

8. Applicant's arguments filed April 6th, 2004 have been fully considered but they are not persuasive.

Specifically, the applicant argues that Bittner does not teach "how" the redundant calculations are eliminated and does not teach eliminating pairs of probe locations that would produce redundant information (Page 13, Paragraph 4). However, Bittner does describe removing redundant calculations, namely calculations that produce the same results (Column 1, lines 43-60). Thus, it would be obvious to remove redundant probes in Angel, where the probes are merely calculations, since these probes produce redundant information.

The applicant further argues that there is no motivation to combine Angel with Bittner, since Angel does not include any suggestion or motivation to modify a method for instrumenting portions of byte code by eliminating redundant calculations (Page 14, Paragraph 1). However, Angel is concerned with inserting probes in byte code, these probes being calculations that generate information. Bittner is concerned with optimizing calculations in a program by removing redundant calculations. Hence, Bittner is an *optimization* of calculations in a program, and it would be beneficial to utilize this optimization in the calculations of Angel.

Finally, the applicant argues that newly added Claims 46-51 teach that the determining, inserting, and collecting steps occur at a time other than when the application is being compiled, which is different from Bittner teaching eliminating redundant calculations while the application is being compiled. However, The eliminating step is not included in the determining, inserting, and collecting steps covered in Claim 46, and thus can be interpreted to occur during compilation. Furthermore, the collecting step is not actually a step but a condition in the

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determining step. The determining step makes a determination of probe locations **based on a** future step of collecting non-redundant data. The collecting does not actually take place within the scope of Claim 1, and is rather used as a condition for the determining step to make its determination. Finally, the steps of determining and inserting, as taught by Angel, occur outside compilation, since the steps act on byte code, which is not compiled.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenneth A Gross whose telephone number is (703) 305-0542. The examiner can normally be reached on Mon-Fri 7:30-5.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Q Dam can be reached on (703) 305-4552. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KAG



TUAN DAM
SUPERVISORY PATENT EXAMINER